

**REMARKS/ARGUMENTS**

**I. Status of the Claims**

Claims 1-5, 8-15, and 121-136 are currently pending in this application. By the present amendment, claims 1, 3, and 8-11 are amended, and claims 2, 6 and 7 are canceled without prejudice or disclaimer. The amendments are supported by the present specification.

No new matter has been added. Claims 121-136 are withdrawn from consideration by the Examiner as being directed to a non-elected invention.

**II. Restriction Requirement**

In reply to the new Restriction Requirement set forth in the present Office Action, withdrawing claims 121-136 from further consideration, Applicants respectfully traverse the requirement for the reasons stated in the Reply filed July 9, 2004 and those set forth below.

Applicants respectfully submit that the subject matter of each of the designated inventions, i.e., Groups I-V, are sufficiently related that a thorough search for the subject matter of each of the designated inventions would encompass a search for the subject matter of the remaining designated inventions. In particular, Applicants point out that claims 121-136 in Groups II-V depend from claim 1 and merely relate to the methods of making the compound of claim 1.

Thus, it is respectfully submitted that the search and examination of these claims could be made without serious burden. *See* M.P.E.P. § 803 in which it states that “if the search and examination of an entire application can be made without serious burden, the

Examiner must examine it on the merits.”

Applicants respectfully request the Office’s reconsideration of the requirement, and the search and examination of all of the pending claims.

### **III. Claim Objections**

In reply to the Office objection of claims 2, 6 and 7 as being substantial duplicates of other claims, Applicants have canceled these claims. Withdrawal of the objection is respectfully requested.

### **IV. Rejections under 35 U.S.C. § 112**

The Office has rejected claims 1-15 under 35 U.S.C. § 112, second paragraph as being indefinite. In summary, the Office alleges that in claim 1 the term “acyl” is incomplete, the specific “suitable substituents” are not disclosed, and the phrase “a combination of two or more thereof” is not clear.

With respect to the term "acyl," Applicants have amended claim 1 in accordance with the Office’s suggestions. In particular, Applicants have defined the term “acyl” in claim 1, as recited in the present specification at page 20.

Regarding the phrase "suitable substituents," the Applicants respectfully submit that the term at question is reasonably clear in light of the disclosure. For instance, at page 19, paragraph 49, Applicants note that " . . . the term 'suitable substituent' is intended to mean any of the radicals containing at least one atom other than just carbon and hydrogen that are recognizable to those skilled in the art as not adversely affecting the biological activity and/or stability of the

inventive compounds." This disclosure is then followed by a list of twenty-two specific examples of "suitable substituents." Given this disclosure, Applicants submit that the phrase "suitable substituents" is reasonably clear and its scope would be known to one having ordinary skill in the art. Therefore, reconsideration and withdrawal of this ground of rejection are respectfully requested.

Regarding the phrase "a combination of two or more thereof," Applicants point out that the phrase refers to the variations of compounds of formula (I) that are covered by claim 1. In order to more particularly point out that Applicants are referring to the variations of the compounds of formula (I), Applicants have deleted the phrase at issue and added the phrase "salts of the compound of formula (I), solvates of the compound of formula (I), solvated salts of the compound of formula (I), and combinations thereof". Support for this amendment can be found throughout the present specification, e.g., at page 9.

Thus, Applicants request the withdrawal of the rejections under 35 U.S.C. § 112, second paragraph over claim 1, as well as claims 3-5 and 8-15 dependent therefrom.

**V. Rejections under 35 U.S.C. § 102(b)**

The Office has rejected claims 1-3, 9, and 15 under 35 U.S.C. § 102(b) as allegedly being anticipated by compound 12 in the reference Bioorganic & Medicinal Chemistry Letters to Griffith et al. ("Griffith"). Applicants respectfully traverse this rejection for the following reason.

As the Office is aware, a rejection under § 102 is only proper when the claimed

subject matter is identically described or disclosed in the prior art. (*See* M.P.E.P. § 706.02(a) (“For anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly.”).) In the present case, Applicants have amended claim 1 such that when A is  $-(CH_2)_2-N(Y)-$  and forms a nitrogen-containing heterocycloalkyl ring with B, D is  $-CH_2OH$  and E is  $-OH$ , then (i) F is not unsubstituted  $-O-C_{1-6}$  alkyl,  $G_4$  is unsubstituted  $-O-C_{1-6}$  alkyl, and Y is unsubstituted  $C_{1-6}$  alkyl. By this amendment, the compound of Griffith is excluded from the present claims. Thus, Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(b) over claim 1, as well as claims 3, 9 and 15 dependent therefrom.

**VI. Rejections under 35 U.S.C. § 103(a)**

The Office has rejected claims 1-3, 9, and 15 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,376,516 to Joshi (“Joshi I”) or U.S. Patent No. 6,673,814 to Joshi (“Joshi II”). Applicants respectfully traverse this rejection for at least the following reasons.

In summary, the Office alleges that Joshi I discloses a similar compound to the presently claimed invention, that in the example compounds C and D (similar to D and E of the compound of the presently claimed invention) form an optional five-membered lactam ring, and that therefore it would have been obvious for the example compounds to *not* form an optional ring with C and D. (Present Office Action at page 4.) The Office also asserts that “any species

within the disclosed genus would be useful for treating a neoplastic disease.” (*Id.*) Applicants respectfully disagree with the Office’s reasoning.

Applicants submit that the compounds of the original claims are not suggested by the Joshi references and there would there be no motivation to pick and choose such compounds from the genus of thousands of possible compounds taught by the references. In particular, claim 1 includes provisos that exclude certain variations and combinations of compounds. For instance, claim 1 recites that:

- (i) F is not unsubstituted -O-C<sub>1-6</sub> alkyl or dialkylamino-substituted -O-C<sub>1-6</sub> alkyl when G<sub>1</sub> is hydrogen, hydroxyl, or unsubstituted -O-C<sub>1-6</sub> alkyl, G<sub>2</sub> is hydrogen, halogen, or a nitrogen-containing radical, G<sub>3</sub> is hydrogen, G<sub>4</sub> is hydroxyl or unsubstituted -O-C<sub>1-6</sub> alkyl, and Y is hydrogen, unsubstituted C<sub>1-6</sub> alkyl, oxo-substituted C<sub>1-6</sub> alkyl, thiocarbamoyl-substituted C<sub>1-6</sub> alkyl, hydroxy-substituted C<sub>1-6</sub> alkyl, or heteroaryl.

(Emphasis added).

This and the other provisos contained in original claim 1, exclude the compounds disclosed in the Joshi references that would otherwise be within the scope of the claimed compounds. Clearly this is the case, since the Examiner has not applied either of the Joshi references under 35 U.S.C. § 102. Moreover, the specific compounds disclosed by Joshi would not suggest a subgenus encompassed by present claim 1.

Furthermore, even if there were some overlap between the broad genus of Joshi and the presently claimed invention (which, as Applicants have pointed out, there is not) then there is still not the required motivation and expectation of success for an obviousness rejection.

Obviousness requires much more than randomly selecting ingredients (species) from a large number of choices (genus). (*See generally, In re Baird*, 16.F.3d 380, 29 U.S.P.Q.2d 1550 (Fed. Cir. 1994). *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992) (“The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious.”).) Rather, “some motivation to select the claimed species or subgenus must be taught by the prior art.” (MPEP 2144.08.). There is nothing in either of the Joshi references to lead one skilled in the art to the present invention.

Thus, for at least these reasons, the obviousness rejection under 35 U.S.C. § 103(a) is improper. Applicants respectfully request that the Office withdraw this rejection.

The Office also has rejected claims 1-15 as allegedly being unpatentable over EP 201359 to Umezu (“Umezu”). Applicants respectfully traverse these rejections for at the following reasons.

As an initial matter, Applicants point out that in the body of the rejection at paragraph 7, page 15 of the present Office Action, the Office relies on Joshi in combination with Umezu to establish its basis for obviousness. However, the Office does not specifically recite that the rejection is over Joshi in view of Umezu, or recite which Joshi reference is relied on. Since the Office has not expressly relied on Joshi as a basis for this rejection, the rejection is improper and should be withdrawn for this reason alone.

For the purpose of this response, Applicants assume that the Office is referring to either of the Joshi references cited in the above obviousness rejection, although that is certainly not clear.

According to the Office, one “would have been motivated to modify Joshi’s example compound by replacing the ethoxy with the alternative bromo [disclosed in Umezu] to arrive at the instant invention . . . since Umezu had clearly taught that any species within the small disclosed genus would be useful for inhibiting the formation of lipid peroxides.” (Present Office Action at page 5.) (Emphasis added.) Applicants respectfully disagree.

First, Applicants note that, much as with the compounds disclosed in the Joshi references, every compound disclosed in Umezu is excluded from the presently claimed invention.

Moreover, as discussed *supra*, there must be guidance from the prior art to arrive at the claimed group of compounds within any broad genus disclosed in the prior art. There is no suggestion that any particular subgenus is preferred, much less the presently claimed invention. Rather, similar to the Joshi references, the examples merely recite a means to make certain compounds. As such, there is no clear motivation to selectively pick and choose a species from Umezu, combine it with a selectively chosen species from the Joshi references, and somehow arrive at the present invention.

Indeed, the only way to create such a reconstruction would be through hindsight of the present invention, which is impermissible for establishing obviousness. *See, e.g., W. L.*

*Gore and Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). Thus, as the rejection is improper for at least this reason, Applicants respectfully request that the Office withdrawn this rejection under 35 U.S.C. § 103(a).

**VII. Obviousness-Type Double Patenting Rejection**

The Office has rejected claims 1-3, 9 and 15 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 1) claims 5-6 of U.S. Patent No. 6,376,516 to Joshi ("Joshi I") or 2) claims 1-17 of U.S. Patent No. 6,673,814 to Joshi ("Joshi II"). Applicants respectfully traverse this rejection for the following reason.

Applicants respectfully submit that the rejection is improper since: 1) the present application shares no common inventors with either of the Joshi references; and 2) the present application the Joshi references have different assignees. (*See* MPEP § 804.) The present application names Youssef L. Bennani, James T. Anderson, Jianmin Wang and Anthony Ting as inventors, while the Joshi patents name Harish C. Joshi, Ye Keqiang, Judith Kapp and Fuqiang Liu as inventors. Further, the present application is assigned to Athersys, while the Joshi patents are assigned on their face to Emory University. Thus, Applicants respectfully request that the non-statutory obviousness-type double patenting rejection be withdrawn.



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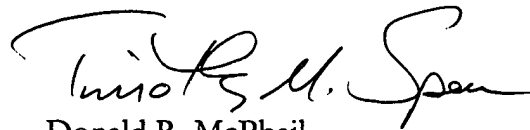
Docket No. ATI-0025

### **CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned agent, **Bryant L. Young**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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